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1 [Hardware-rooted trust for secure key management and transient trust](#)



Jeffrey S. Dvoskin, Ruby B. Lee

October 2007 CCS '07: Proceedings of the 14th ACM conference on Computer and communications security

Publisher: ACM

Full text available: [pdf\(520.62 KB\)](#)



Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 42, Downloads (12 Months): 183, Citation Count: 0

We propose minimalist new hardware additions to a microprocessor chip that protect cryptographic keys in portable computing devices which are used in the field but owned by a central authority. Our *authority-mode architecture* has trust rooted ...

Keywords: emergency response, hardware policy enforcement, key management, secret protection (sp), secure processors, transient trust

2 [An improving model watermarking with iris biometric code](#)



George Varbanov, Peter Blagoev

June CompSysTech '07: Proceedings of the 2007 international conference on
2007 Computer systems and technologies

Publisher: ACM

Full text available: [pdf\(565.54 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#)

Bibliometrics: Downloads (6 Weeks): 17, Downloads (12 Months): 43, Citation Count: 0

The Paper justifies need to work with new technology for perfect safety in specific area of the human deal (the business). The Problem same important with new technology - internet, all multimedia author's system, video watch of the system, audio production ...

Keyw ords: biometric system, biometric watermark, iris code, video-watch system, watermark with discrete wavelet transformation I

3 [Error-tolerant password recovery](#)



Niklas Frykholm, Ari Juels

November CCS '01: Proceedings of the 8th ACM conference on Computer and
2001 Communications Security

Publisher: ACM

Full text available: [pdf\(250.03 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#),
[index terms](#)

Bibliometrics: Downloads (6 Weeks): 13, Downloads (12 Months): 74, Citation Count: 4

Many encryption systems require the user to memorize high entropy passwords or passphrases and reproduce them exactly. This is often a difficult task. We propose a more fault-tolerant scheme, where a high entropy key (or password) is derived from a sequence ...

Keyw ords: Reed-Solomon codes, error-correcting codes, fault-tolerance, fuzzy commitment, password ensembles, password recovery

4 [Password management using doodles](#)



Naveen Sundar Govindarajulu, Sriganesh Madhvanath

November I CMI '07: Proceedings of the 9th international conference on Multimodal
2007 interfaces

Publisher: ACM

Full text available: [pdf\(239.75 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 11, Downloads (12 Months): 79, Citation Count: 0

The average computer user needs to remember a large number of text username and password combinations for different applications, which places a large cognitive load on the user. Consequently users tend to write down passwords, use easy to remember (and ...

Keywords: doodles, password management

5 [The domino effect of password reuse](#)



Blake Ives, Kenneth R. Walsh, Helmut Schneider

April 2004 Communications of the ACM, Volume 47 Issue 4

Publisher: ACM

Full text available: [pdf\(100.88 KB\)](#) [html\(23.20 KB\)](#)

Additional Information: [full citation](#), [abstract](#),
[references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 20, Downloads (12 Months): 256, Citation Count: 5

One weak spot is all it takes to open secured digital doors and online accounts causing untold damage and consequences.

6 [Biometric identification](#)



Anil Jain, Lin Hong, Sharath Pankanti

February 2000 Communications of the ACM, Volume 43 Issue 2

Publisher: ACM

Full text available: [pdf\(677.32 KB\)](#) [html\(37.23 KB\)](#)

Additional Information: [full citation](#), [references](#),
[cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 109, Downloads (12 Months): 1237, Citation Count: 18

7 [Biometric daemons: authentication via electronic pets](#)



Pamela Briggs, Patrick L. Olivier

April 2008 CHI '08: CHI '08 extended abstracts on Human factors in computing systems

Publisher: ACM

Full text available: [pdf\(167.19 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 0, Downloads (12 Months): 0, Citation Count: 0

A well-known security and identification problem involves the creation of secure but usable identification and authentication tools that the user is fully motivated to adopt. We describe an innovative solution to this problem: The Biometric Daemon, which ...

Keyw ords: agent technologies, biometrics, identity, privacy, security, trust

8 Protected transmission of biometric user authentication data for oncard-matching



Ulrich Waldmann, Dirk Scheuermann, Claudia Eckert

March SAC '04: Proceedings of the 2004 ACM symposium on Applied computing 2004

Publisher: ACM

Full text available: [pdf\(574.45 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#)

Bibliometrics: Downloads (6 Weeks): 22, Downloads (12 Months): 190, Citation Count: 1

Since fingerprint data are no secrets but of public nature, the verification data transmitted to a smartcard for oncard-matching need protection by appropriate means in order to assure data origin in the biometric sensor and to prevent bypassing the ...

Keyw ords: authentication, biometrics, cryptographic protocols, data integrity, electronic signature, oncard-matching, smartcards, system security, tamper proof environment

9 A secure biometric authentication scheme based on robust hashing



Yagiz Sutcu, Husrev Taha Sencar, Nasir Memon

August MM&Sec '05: Proceedings of the 7th workshop on Multimedia and security 2005

Publisher: ACM

Full text available: [pdf\(821.83 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 27, Downloads (12 Months): 281, Citation Count: 2

In this paper, we propose a secure biometric based authentication scheme which fundamentally relies on the use of a robust hash function. The robust hash function is a one-way transformation tailored specifically for each user based on their biometrics. ...


Keyw ords: authentication, biometrics, privacy, robust hashing, security

10 [Audio-visual multimodal fusion for biometric person authentication and liveness verification](#)

Girija Chetty, Michael Wagner

April MMUI '05: Proceedings of the 2005 NICTA-HCSNet Multimodal User 2006 Interaction Workshop - Volume 57, Volume 57

Publisher: Australian Computer Society, Inc.

Full text available:  [pdf\(719.65 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 12, Downloads (12 Months): 213, Citation Count: 0

In this paper we propose a multimodal fusion framework based on novel face-voice fusion techniques for biometric person authentication and liveness verification.

Checking liveness guards the system against spoof/replay attacks by ensuring that the biometric ...


Keywords: biometric authentication, liveness verification, multimodal fusion

11 [Authentication using graphical passwords: effects of tolerance and image choice](#)



Susan Wiedenbeck, Jim Waters, Jean-Camille Birget, Alex Brodskiy, Nasir Memon
July SOUPS '05: Proceedings of the 2005 symposium on Usable privacy and 2005 security

Publisher: ACM

Full text available:  [pdf\(555.83 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 19, Downloads (12 Months): 226, Citation Count: 4

Graphical passwords are an alternative to alphanumeric passwords in which users click on images to authenticate themselves rather than type alphanumeric strings.

We have developed one such system, called PassPoints, and evaluated it with human users. ...

Keywords: PassPoints, authentication, graphical passwords, human factors, password images, password security, tolerance, usable security

12 [Modeling user choice in the PassPoints graphical password scheme](#)



Ahmet Emir Dirik, Nasir Memon, Jean-Camille Birget

July SOUPS '07: Proceedings of the 3rd symposium on Usable privacy and security 2007

Publisher: ACM

Full text available:  [pdf\(445.65 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 13, Downloads (12 Months): 120, Citation Count: 0

We develop a model to identify the most likely regions for users to click in order to create graphical passwords in the *PassPoints* system. A PassPoints password is a sequence of points, chosen by a user in an image that is displayed on the screen. ...

Keyw ords: dictionary attack, graphical passwords, password entropy, user behavior

13 [Randomized radon transforms for biometric authentication via fingerprint hashing](#)



Mariusz H. Jakubowski, Ramarathnam Venkatesan

October 2007 DRM '07: Proceedings of the 2007 ACM workshop on Digital Rights Management

Publisher: ACM

Full text available: [pdf\(282.42 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 23, Downloads (12 Months): 157, Citation Count: 0

We present a new technique for generating biometric fingerprint hashes, or summaries of information contained in human fingerprints. Our method calculates and aggregates various key-determined metrics over fingerprint images, producing short hash strings ...

Keywords: authentication, biometrics, fingerprints, hashing, radon transform

14 [Reducing shoulder-surfing by using gaze-based password entry](#)



Manu Kumar, Tal Garfinkel, Dan Boneh, Terry Winograd

July 2007 SOUPS '07: Proceedings of the 3rd symposium on Usable privacy and security

Publisher: ACM

Full text available: [pdf\(241.95 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 142, Citation Count: 0


Shoulder-surfing -- using direct observation techniques, such as looking over someone's shoulder, to get passwords, PINs and other sensitive personal information -- is a problem that has been difficult to overcome. When a user enters information using ...

Keywords: eye tracking, gaze-based password entry, password entry, shoulder surfing

15 [Usability and biometric verification at the ATM interface](#)



Lynne Coventry, Antonella De Angeli, Graham Johnson
April 2003 CHI '03: Proceedings of the SIGCHI conference on Human factors in computing systems
Publisher: ACM

Full text available:  [pdf\(513.55 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 49, Downloads (12 Months): 422, Citation Count: 5


This paper describes some of the consumer-driven usability research conducted by NCR Self Service Strategic Solutions in the development of an understanding of usability and user acceptance of leading-edge biometrics verification techniques. We discuss ...

Keywords: ATMs, biometrics technology, iris verification, usability techniques

16 [An improvement to a biometric-based multimedia content protection scheme](#)



Daniel Socek, Michal Sramka, Oge Marques, Dubravko •ulibrk
September 2006 MM&Sec '06: Proceedings of the 8th workshop on Multimedia and security
Publisher: ACM

Full text available:  [pdf\(142.37 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 113, Citation Count: 0

A biometric-based method for multimedia content protection was recently proposed. The method relies on biometric data of the user and a layered encryption mechanism to achieve confidentiality of the multimedia content. Our analysis suggests that the ...

Keywords: authentication, biometrics, digital rights management, multimedia content protection, security

17 [Commercial key recovery](#)



Stephen T. Walker, Steven B. Lipner, Carl M. Ellison, David M. Balenson
March 1996 Communications of the ACM, Volume 39 Issue 3
Publisher: ACM

Full text available:  [pdf\(536.19 KB\)](#)

Additional Information: [full citation](#), [references](#), [cited by](#), [index terms](#), [review](#)

Bibliometrics: Downloads (6 Weeks): 11, Downloads (12 Months): 45, Citation Count: 2

18 [Password hardening based on keystroke dynamics](#)



Fabian Monrose, Michael K. Reiter, Susanne Wetzel

November CCS '99: Proceedings of the 6th ACM conference on Computer and communications security

Publisher: ACM

Full text available: [pdf\(1.01 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 17, Downloads (12 Months): 112, Citation Count: 9

We present a novel approach to improving the security of passwords. In our approach, the legitimate user's typing patterns (e.g., durations of keystrokes, and latencies between keystrokes) are combined with the user's password to generate a hardened ...

19 [Securing passwords against dictionary attacks](#)



Benny Pinkas, Tomas Sander

November CCS '02: Proceedings of the 9th ACM conference on Computer and communications security

Publisher: ACM

Full text available: [pdf\(216.72 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 24, Downloads (12 Months): 265, Citation Count: 15

The use of passwords is a major point of vulnerability in computer security, as passwords are often easy to guess by automated programs running dictionary attacks. Passwords remain the most widely used authentication method despite their well-known security ...

20 [Reusable cryptographic fuzzy extractors](#)



Xavier Boyen

October CCS '04: Proceedings of the 11th ACM conference on Computer and communications security

Publisher: ACM

Full text available: [pdf\(251.61 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 96, Citation Count: 2

We show that a number of recent definitions and constructions of fuzzy extractors are not adequate for multiple uses of the same fuzzy secret---a major shortcoming in the case of biometric applications. We propose two particularly stringent security ...

Keyw ords: biometric keying, chosen perturbation security, fuzzy extractor, zero storage biometric authentication

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